

PRELIMINARY DASS TRANSPONDER CHARACTERISTICS

ACTION REQUIRED

The MEOSAR EWG is invited to note the provisional characteristics of the DASS MEOSAR instrument. The information is provided in response to EWG-1/2002 Recommendation 3.6.b (Annex 6 to EWG-1/2002 Report).

It should be noted that the DASS L-band instrument specification and design has not been completed at this time. The parameter values where provided are, therefore, provisional. Final values will be supplied at completion of instrument specification and design.

Preliminary DASS Transponder Characteristics⁽¹⁾

Parameter	Value	Units
Uplink frequency range	406.0 to 406.1	MHz
Nominal input power level at antenna input ⁽²⁾	-159.0	dBW
Maximum input power level at antenna input ⁽³⁾	-148.0	dBW
System dynamic range	30	dB
Receive antenna polarization	RHCP	-
Receive antenna gain	10.7	dBiC
System noise temperature	695	K
Receive system G/T	-17.7	dBi/K
Bandpass Characteristic (0.5 dB bandwidth)	100	KHz
Phase linearity (overall in-band)	within $\pm 10^\circ$ of linear	Degrees
Group delay	5.8 +/- 0.5	us
Group delay slope	-	-
AGC time constant	250	ms
AGC dynamic range	30	dB
Transponder gain (including ant. gains)	165	dB
Transponder linearity (C/I)	-	-
Frequency translation	direct	-
Gain stability	+/- 0.5	dB
Output frequency stability	$\sim 1e-11$	-
Downlink frequency band	1544.8 to 1545.0	MHz
Downlink antenna polarization	RHCP	-
Maximum transmitter output power	7	dBW
Downlink antenna gain	10.5	dBiC

- (1) Final parameters for the DASS L-Band transponder will be supplied at completion of instrument specification and design.
- (2) Four simultaneous 406 MHz beacon signals at the antenna input each at -165 dBW.
- (3) Ten simultaneous 406 MHz beacon signals at the antenna input each at -165 dBW plus 2 interferers in the band each with 100 Watt EIRP.